

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A sustained release composition suitable for use as an excipient ~~of for mixing within~~ an orally administered specimen containing a bioactive substance in order to provide a sustained release of the bioactive substance, comprising:

(a) powdered cellulose ~~in an amount by weight in the orally administered specimen in the range from about 4% to about 14%; and~~

(b) maltodextrin,

~~in an amount such that~~ wherein the ratio by weight of the amount of powdered cellulose to the amount of maltodextrin in the ~~orally administered specimen~~ sustained release composition is at least in a range of about 1:9 to about 2:3, and

wherein, ~~upon~~ after mixing the sustained release composition with a bioactive substance in an orally administered specimen in an amount so that the powdered cellulose has a concentration in a range from about 4% to about 14% by weight of the orally administered specimen substance, the powdered cellulose and the maltodextrin act to slow the disintegration of the orally administered specimen to provide a sustained release of the bioactive substance over a period of time of at least one hour.

2. (Currently Amended) A sustained release composition as recited in claim 1, wherein ~~said~~ the sustained release composition is suitable for reducing stomach irritation by an orally administered specimen further that comprises a glucosamine-based compound.

3. (Currently Amended) A sustained release composition as recited in claim 1, wherein ~~said~~ the sustained release composition is suitable for reducing stomach irritation by an orally administered specimen further that comprises a chondroitin-based compound.

4. (Currently Amended) A sustained release composition as recited in claim 1, wherein ~~said~~ the sustained release composition is suitable for reducing stomach irritation by an orally administered specimen further that comprises methylsulfonyl methane.

5. (Currently Amended) A sustained release composition as recited in claim 1, wherein ~~said~~ the sustained release composition is suitable for reducing stomach irritation by an orally administered specimen further that comprises a compound selected from the group consisting of glucosamine sulfate, glucosamine hydrochloride, and mixtures thereof.

6. (Currently Amended) A sustained release composition as recited in claim 1, wherein ~~said~~ the sustained release composition is suitable for reducing stomach irritation by an orally administered specimen further that comprises chondroitin sulfate.

7. (Cancelled)

8. (Currently Amended) A sustained release composition as recited in claim 1, wherein ~~said~~ the ratio by weight of the amount of powdered cellulose to the amount of maltodextrin in the orally administered specimen sustained release composition is in the a range ~~from of~~ about 1:4 to about 3:7.

9. (Cancelled)

10. (Cancelled)

11. (Currently Amended) A sustained release composition as recited in claim 1, wherein ~~said~~ the sustained release composition is suitable for use within an orally administered delivery specimen that is a tablet.

12. (Currently Amended) A sustained release composition as recited in claim 1, wherein ~~said powdered cellulose is cellulose with~~ has a degree of polymerization degree in the a range ~~from of~~ about 440 to about 2250.

13. (Currently Amended) A sustained release composition as recited in claim 1, wherein ~~said powdered cellulose is cellulose with~~ has a degree of polymerization degree of about 1432.

14. (Currently Amended) A sustained release composition as recited in claim 1, wherein said maltodextrin ~~is~~ comprises at least one [[a]] maltodextrin selected from the group consisting of M580 maltodextrin, M700 maltodextrin, and mixtures thereof.

15. (Currently Amended) A sustained release composition as recited in claim 1, wherein said maltodextrin ~~is~~ comprises M510 maltodextrin that is substantially free of wheat protein, barley protein, oat protein, and rye protein.

16. (Currently Amended and Withdrawn) A method for providing sustained release of a bioactive substance during a chosen time interval, comprising:

(a) providing a delivery specimen ~~including~~ comprised of the [[a]] sustained release composition as recited in claim 1 mixed within the delivery specimen together with a bioactive substance;

(b) determining the sustained release of the bioactive substance as a function of time to ascertain the effective amount of bioactive substance that is released and to ascertain the time during which said bioactive substance is released; and

(c) determining a delivery specimen intake frequency and a number of said delivery specimens taken to maintain a desired amount of bioactive substance during a chosen time interval.

17. (Withdrawn) A method as recited in claim 16, wherein said determining the sustained release of the bioactive substance as a function of time comprises determining the cumulative release of the bioactive substance as a function of time.

18. (Withdrawn) A method as recited in claim 16, wherein said determining the sustained release of the bioactive substance as a function of time comprises determining the incremental release of the bioactive substance as a function of time.

19. (Withdrawn) A method as recited in claim 16, wherein said bioactive substance is a compound selected from the group consisting of glucosamine sulfate, glucosamine hydrochloride, and mixtures thereof.

20. (Withdrawn) A method as recited in claim 16, wherein said delivery specimen is a tablet.

21. (Currently Amended) A sustained release orally administered specimen ~~containing a bioactive substance~~, comprising:

(a) an excipient portion that includes a sustained release composition mixed throughout the orally administered specimen, the sustained release composition comprising:

powdered cellulose included in an amount by weight in the orally administered specimen in the a range from of about 4% to about 14% by weight of the orally administered specimen; and

maltodextrin in an amount such that the ratio by weight of the amount of powdered cellulose to the amount of maltodextrin in the orally administered specimen is at least about 1:9; and

(b) ~~the a~~ bioactive substance mixed with the sustained release composition throughout the orally administered specimen [[,]] such that the maltodextrin and the cellulose slowly disintegrate ~~in~~ when exposed to an aqueous medium ~~and to~~ thereby provide ~~the a~~ a sustained release of the bioactive substance over ~~for~~ a time period, ~~and this time period is of~~ at least one hour;

wherein the powdered cellulose and the maltodextrin are mixed with the bioactive substance throughout the orally administered specimen such that, upon ingestion, the ~~orally administered specimen sustained release composition~~ gels to prevent direct contact between ~~a substantial amount~~ at least a portion of the bioactive substance and a stomach wall.

22. (Currently Amended) A sustained release orally administered specimen as recited in claim 21, wherein said time period is in ~~the a~~ range ~~from of~~ about one hour to about three hours.

23. (Currently Amended) A sustained release orally administered specimen as recited in claim 21, wherein said time period is in ~~the a~~ range ~~from of~~ about one hour to about two hours.

24. (Previously Presented) A sustained release orally administered specimen as recited in claim 21, wherein said bioactive substance comprises a glucosamine-based compound.

25. (Previously Presented) A sustained release orally administered specimen as recited in claim 21, wherein said bioactive substance comprises a chondroitin-based compound.

26. (Currently Amended) A sustained release orally administered specimen as recited in claim 21, wherein said bioactive substance comprises at least one substance selected from the group consisting of glucosamine sulfate, glucosamine hydrochloride, and mixtures thereof.

27. (Previously Presented) A sustained release orally administered specimen as recited in claim 21, wherein said bioactive substance comprises chondroitin sulfate.

28. (Previously Presented) A sustained release orally administered specimen as recited in claim 21, wherein said bioactive substance comprises methylsulfonyl methane.

29. (Currently Amended) A sustained release orally administered specimen as recited in claim 21, wherein said powdered cellulose is ~~comprised~~ included in an amount by weight in the orally administered specimen in ~~the a range from of~~ a range of about 5% to about 13%.

30. (Previously Presented) A sustained release orally administered specimen as recited in claim 21, wherein the cumulative sustained release of the bioactive substance as a function of time increases for a time period of at least about one hour.

31. (Previously Presented) A sustained release orally administered specimen as recited in claim 21, wherein the incremental sustained release of the bioactive substance as a function of time provides an amount of the bioactive substance that is, in any fifty-minute interval during said time period, less than about 50% of the total amount of the bioactive substance initially present in the orally administered specimen.

32. (Previously Presented) A sustained release orally administered specimen as recited in claim 21, wherein said orally administered specimen is a tablet.

33. (Currently Amended) A sustained release orally administered specimen ~~containing a glucosamine-based substance~~, comprising:

(a) an excipient portion that includes a sustained release composition mixed throughout the orally administered specimen, the sustained release composition comprising:

powdered cellulose included in an amount by weight ~~in~~ of the orally administered specimen in ~~the a range from~~ a range of about 4% to about 14%; and

maltodextrin in an amount such that the ratio by weight of the amount of powdered cellulose to the amount of maltodextrin in the orally administered specimen is at least about 1:9 ~~and~~ with the proviso that the amount of maltodextrin exceeds the amount of powdered cellulose; and

(b) ~~the a~~ a glucosamine-based substance mixed with the sustained release composition throughout the orally administered specimen ~~[[,]]~~ such that the maltodextrin and the cellulose slow the disintegration of the orally administered specimen and thereby provide in an aqueous medium ~~the a~~ a sustained release of the glucosamine-based substance for a time interval such that the released glucosamine-based substance does not significantly irritate ~~the a~~ a recipient's stomach lining;

wherein the powdered cellulose and the maltodextrin are mixed with the glucosamine-based substance throughout the orally administered specimen such that, upon ingestion, the ~~orally administered specimen~~ sustained release composition gels to prevent direct contact between ~~a substantial amount~~ at least a portion of the glucosamine-based substance and a stomach wall and thereby acts as a stomach guard with respect to the glucosamine-based substance.

34. (Previously Presented) A sustained release orally administered specimen as recited in claim 33, wherein said maltodextrin is a commercial maltodextrin free from wheat protein, barley protein, oat protein, and rye protein.

35. (Currently Amended) A sustained release orally administered specimen as recited in claim 33, wherein said specimen is a tablet ~~and said cellulose is comprised therein in the form of powdered cellulose.~~

36. (Currently Amended) A sustained release orally administered specimen as recited in claim 33, wherein said powdered cellulose is ~~comprised~~ included in an amount by weight in the orally administered specimen in ~~the~~ a range ~~from~~ of about 5% to about 13%.

37. (Currently Amended) A sustained release orally administered specimen as recited in claim 33, wherein ~~said~~ the ratio by weight of the amount of powdered cellulose to the amount of maltodextrin in the orally administered specimen is in ~~the~~ a range ~~from~~ of about 1:9 to about 2:3.

38. (Currently Amended) A sustained release orally administered specimen as recited in claim 33, wherein ~~said~~ the ratio by weight of the amount of powdered cellulose to the amount of maltodextrin in the orally administered specimen is in ~~the~~ a range ~~from~~ of about 1:4 to about 3:7.

39. (Currently Amended and Withdrawn) A method for providing sustained release of a bioactive substance during a chosen time interval, comprising:

(a) providing a delivery specimen including that comprises a sustained release composition as recited in claim 1 mixed with a bioactive substance throughout the delivery specimen;

(i) ~~cellulose in an amount by weight in the delivery specimen in the range from about 4% to about 14%;~~

(ii) ~~maltodextrin in an amount such that the ratio by weight of the amount of cellulose to the amount of maltodextrin in the delivery specimen is at least about 1:9, and wherein the cellulose and the maltodextrin are distributed throughout the delivery specimen; and~~

(iii) ~~a bioactive substance, such that the maltodextrin and the cellulose provide the sustained release of the bioactive substance for the chosen time interval;~~

(b) determining the sustained release of the bioactive substance as a function of time to ascertain the effective amount of bioactive substance that is released and to ascertain the time during which said bioactive substance is released; and

(c) determining an intake frequency and a number of said delivery specimens to maintain a desired amount of bioactive substance during a chosen time interval.

40. (Withdrawn) A method as recited in claim 39, wherein said determining the sustained release of the bioactive substance as a function of time comprises determining at least one of the cumulative release of the bioactive substance as a function of time and the incremental release of the bioactive substance as a function of time.

41. (Currently Amended and Withdrawn) A method as recited in claim 39, wherein ~~said cellulose is powdered cellulose and~~ said maltodextrin comprises at least one maltodextrin selected from the group M510 maltodextrin, M580 maltodextrin, M700 maltodextrin, and mixtures thereof.

42. (Currently Amended and Withdrawn) A method as recited in claim 39, wherein ~~said the powdered~~ cellulose is ~~comprised~~ included in an amount by weight in the ~~orally administered~~ delivery specimen in ~~the a range from of~~ about 5% to about 13% ~~, and said ratio by weight of the amount of cellulose to the amount of maltodextrin in the orally administered specimen is in the range from about 1:9 to about 2:3.~~

43. (Currently Amended and Withdrawn) A method as recited in claim 39, wherein ~~said the~~ delivery specimen is a tablet, and ~~said the~~ ratio by weight of the amount of powdered cellulose to the amount of maltodextrin in the ~~orally administered~~ delivery specimen is in ~~the a~~ range ~~from of~~ about 1:4 to about 3:7.